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ARMY ELECTRONICS COMMAND WHITE SANDS MISSILE RANGE N--ETC F/G 4/2
12832A LANCE, MISSILE NUMBER 3370, ROUND NUMBER 317 RCL (20 JUL--ETC(U)
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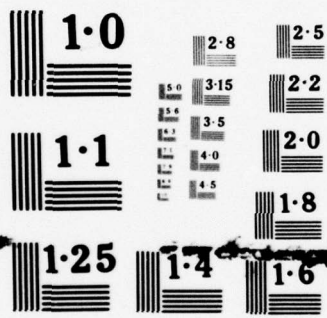
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August 1978

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METEOROLOGICAL DATA REPORT

12832A LANCE
MISSILE NO. 3370, ROUND NO. 317 RCL
(20 JULY 1978)

BY

WSMR METEOROLOGICAL TEAM

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ATMOSPHERIC SCIENCES LABORATORY
WHITE SANDS MISSILE RANGE, NEW MEXICO

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UNITED STATES ARMY ELECTRONICS COMMAND

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INTRODUCTION

12832A Lance, Missile Number 3370, Round Number 317 RCL, was launched from LC-33, White Sands Missile Range (WSMR), New Mexico, at 1200 HRS MDT, 20 July 1978. The scheduled launch time was 1200 HRS MDT.

DISCUSSION

Meteorological data were recorded and reduced by the WSMR Meteorological Team, Atmospheric Sciences Laboratory (ASL), WSMR, New Mexico. The data are presented in the following tabulations.

ELEVATION	3,977	FEET/MSL
PRESSURE	880.0	MBS
TEMPERATURE	30.5	°C
RELATIVE HUMIDITY	38	%
DEW POINT	14.5	°C
DENSITY	1,002	GM/M ³
WIND SPEED	04	MPH
WIND DIRECTION	105	DEGREES
CLOUD COVER	1 2 2	Cu Ac Ci

TABLE 1. SURFACE OBSERVATIONS TAKEN AT LC-33,
1200 HRS MDT/20 JULY 1978.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)	HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
SUR	290	03.0	2100	112	10.5
100	348	01.5	2200	105	09.5
200	CALM		2300	126	08.5
300	083	01.0	2400	147	07.0
400	120	02.0	2500	137	08.0
500	117	05.5	2600	127	08.5
600	113	08.5	2700	128	08.0
700	121	10.0	2800	129	07.5
800	129	11.0	2900	109	06.0
900	128	11.5	3000	089	04.5
1000	127	11.5	3100	090	06.5
1100	113	12.0	3200	091	08.0
1200	098	12.0	3300	089	06.5
1300	103	11.5	3400	086	05.0
1400	108	10.5	3500	084	04.5
1500	108	09.5	3600	082	04.0
1600	107	08.5	3700	076	06.0
1700	111	09.5	3800	070	08.0
1800	115	10.5	3900	052	04.5
1900	117	11.0	4000	034	00.5
2000	119	11.5	4100	079	02.5

TABLE II. PILOT-BALLOON-MEASURED WIND DATA, RELEASE NO. 1
RELEASED FROM LC-33, AT 1150 HRS MDT/20 JULY 1978
12832A LANCE, MISSILE NO. 3370, ROUND NO. 317 RCL

PIBAL RELEASE POINT WSTM COORDINATES:

X = 486,037.24 Y = 182,350.16 Z = 3,977.30

APPROXIMATELY: 1/2 MILE SOUTH OF LAUNCHER.

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
4200	123	04.5
4300	143	05.5
4400	163	06.0
4500	145	06.5
4600	127	06.5
4700	132	07.0
4800	136	07.5
4900	079	07.0
5000	022	06.0
5100	097	07.5
5200	171	08.5
5300	160	08.5
5400	149	08.0
5500	145	07.0
5600	141	06.0
5700	120	05.0
5800	099	04.0
5900	115	04.5
6000	130	04.5
6100	110	05.0
6200	089	05.5
6300	084	07.0
6400	078	08.5
6500	075	06.5
6600	071	04.0

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
6700	065	09.5
6800	059	15.0
6900	058	16.0
7000	056	16.5
7100	056	16.0
7200	055	15.5
7300	057	15.5
7400	058	15.5
7500	059	15.5
7600	059	15.5
7700	059	15.0
7800	059	14.0
7900	062	14.5
8000	064	14.5
8100	065	14.5
8200	066	14.0
8300	068	13.5
8400	069	13.0
8500	068	13.5
8600	067	14.0
8700	068	14.0
8800	068	14.0
8900	069	13.5
9000	070	12.5

TABLE II. (CONT)

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)	HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
SUR	105	04.0	2100	136	09.0
100	075	02.0	2200	139	09.5
200	CALM		2300	138	09.5
300	072	00.5	2400	137	09.5
400	098	00.5	2500	135	08.5
500	021	04.5	2600	133	07.5
600	143	08.5	2700	136	07.5
700	143	09.5	2800	138	07.5
800	143	10.5	2900	140	06.0
900	143	10.0	3000	142	04.5
1000	143	09.5	3100	135	05.0
1100	147	09.0	3200	127	05.5
1200	150	08.5	3300	107	08.5
1300	147	08.5	3400	087	11.0
1400	144	08.0	3500	098	11.5
1500	142	09.0	3600	109	12.0
1600	139	10.0	3700	113	11.5
1700	139	11.5	3800	117	11.0
1800	139	12.5	3900	114	10.5
1900	136	10.5	4000	110	10.0
2000	132	08.5	4100	116	10.0

TABLE III. PILOT-BALLOON-MEASURED WIND DATA, RELEASE NO. 2
RELEASED FROM LC-33, AT 1200 HRS MDT/20 JULY 1978
12832A LANCE, MISSILE NO. 3370, ROUND NO. 317 RCL

PIBAL RELEASE POINT WSTM COORDINATES:

X = 486,037.24 Y = 182,350.16 Z = 3,977.30

APPROXIMATELY: 1/2 MILE SOUTH OF LAUNCHER.

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)	HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
4200	121	10.0	6700	080	07.0
4300	114	12.0	6800	072	07.5
4400	107	13.5	6900	072	08.5
4500	104	13.5	7000	072	09.0
4600	100	13.0	7100	067	11.0
4700	106	13.0	7200	062	12.5
4800	112	13.0	7300	054	13.0
4900	112	13.0	7400	045	13.5
5000	111	12.5	7500	047	14.0
5100	115	12.5	7600	049	14.0
5200	118	12.0	7700	050	14.0
5300	119	12.0	7800	051	14.0
5400	120	11.5	7900	051	14.0
5500	125	13.0	8000	051	14.0
5600	130	14.0	8100	051	13.5
5700	127	13.0	8200	051	13.0
5800	124	12.0	8300	054	13.5
5900	115	11.0	8400	056	13.5
6000	105	10.0	8500	058	13.5
6100	124	08.0	8600	060	13.0
6200	143	05.5	8700	061	12.5
6300	135	06.0	8800	062	12.0
6400	126	06.5	8900	065	12.0
6500	107	06.5	9000	068	11.5
6600	087	06.5			

TABLE III. (CONT)

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

TIME (SEC)	SPEED (MPH)	DIR DEG
-30.0	6.0	089
-25.0	6.0	089
-20.0	6.0	088
-15.0	5.0	087
-10.0	4.0	078
-05.0	3.0	075
-00.0	2.0	075
+05.0	3.0	085
+10.0	4.0	086

TABLE IV. ANEMOMETER MEASURED WIND SPEED AND DIRECTION, POLE NO. 2
RELEASED FROM LC-33, AT 1200 HRS MDT/20 JULY 1978
12832A LANCE, MISSILE NO. 3370, ROUND NO. 317 RCL

WSTM COORDINATES: X = 485,874.93 Y = 186,012.00 Z = 4,033.57

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

STATION ALTITUDE 3989.00 FEET MSL
 20 JULY 78
 ASCENSION NO. 456

SIGNIFICANT LEVEL DATA
 2010020456
 WHITE SANDS
 TABLE V.

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

STATION ALTITUDE FEET MSL	ASCENSION NO.	TIME	PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES	DEWPOINT CENTIGRADE	REL. HUM. PERCENT
3989.0			879.6	3989.0	35.0	6.3	47.0
5006.1			850.0	5006.1	30.3	.8	15.0
6014.6			821.0	6014.6	25.7	-.4	18.0
8657.3			748.2	8657.3	17.7	2.8	37.0
10518.8			700.0	10518.8	15.0	-1.5	32.0
12177.0			659.2	12177.0	11.1	-9.2	23.0
12586.8			649.4	12586.8	10.0	-6.8	30.0
14177.1			612.4	14177.1	5.5	-3.8	51.0
14703.9			600.5	14703.9	4.1	-1.7	66.0
15403.0			585.0	15403.0	3.1	-4.1	59.0
16664.0			557.8	16664.0	-.9	-4.6	76.0
17458.0			541.2	17458.0	-1.1	-6.4	67.0
17878.2			532.6	17878.2	-1.8	-8.3	61.0
18715.5			515.8	18715.5	-3.3	-8.9	65.0
19522.4			500.0	19522.4	-5.7	-9.7	73.0
19990.6			491.0	19990.6	-6.6	-9.1	82.0
21731.3			458.6	21731.3	-11.4	-14.9	75.0
22130.3			451.4	22130.3	-12.3	-16.0	74.0
22579.9			443.4	22579.9	-12.5	-33.7	15.0
23451.9			428.2	23451.9	-15.1	-37.2	13.0
24760.8			406.2	24760.8	-16.3	-38.2	13.0
25140.7			400.0	25140.7	-17.5	-38.5	14.0
27472.4			363.6	27472.4	-21.8	-44.2	11.0
32044.6			300.0	32044.6	-31.3	-50.5	13.0
36207.6			250.0	36207.6	-41.6		
38590.5			224.4	38590.5	-47.5		
41066.9			200.0	41066.9	-53.0		
46855.9			151.2	46855.9	-64.6		
47016.5			150.0	47016.5	-64.4		
47920.3			143.4	47920.3	-66.0		

STATION ALTITUDE 3989.00 FEET MSL
20 JULY 78
ASCENSION NO. 456

SIGNIFICANT LEVEL DATA
2010020456
WHITE SANDS
TABLE V. (CONT.)

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT
135.8	49013.8	-64.5		
100.0	55087.4	-71.0		
89.2	57323.5	-70.5		
83.4	58656.4	-65.7		
70.0	62209.2	-61.1		
62.0	64693.9	-61.9		
50.0	69141.1	-57.1		
42.6	72507.9	-54.9		
33.6	77514.7	-55.7		
30.0	79911.4	-54.0		
22.2	86386.8	-48.5		
20.0	88663.5	-47.8		
14.0	96448.1	-48.5		
12.6	98764.1	-44.8		

UPPER AIR DATA
 2010020456
 WHITE SANDS
 TABLE VI.

STATION ALTITUDE 3989.00 FEET MSL
 20 JULY 78
 ASCENSION NO. 456

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
		AIR DEGREES	DEWPOINT CENTIGRADE				DIRECTION DEGREES(TN)	SPEED KNOTS	
3989.0	879.8	35.0	6.3	17.0	990.5	685.3	80.0	6.0	1.000259
4000.0	879.5	34.9	6.3	17.0	990.3	685.2	80.1	6.0	1.000259
4500.0	864.7	32.6	3.6	16.0	981.7	682.4	84.4	6.4	1.000251
5000.0	850.2	30.3	.8	15.0	973.1	679.7	88.2	6.7	1.000244
5500.0	835.7	28.0	.3	16.5	963.8	677.1	91.6	7.1	1.000241
6000.0	821.4	25.8	-.4	18.0	954.7	674.5	94.7	7.6	1.000238
6500.0	807.1	24.2	.9	21.5	942.6	672.8	99.0	7.4	1.000238
7000.0	793.1	22.7	1.7	25.1	930.7	671.2	105.8	6.6	1.000237
7500.0	779.3	21.2	2.3	28.7	919.0	669.6	124.1	5.2	1.000236
8000.0	765.7	19.7	2.7	32.3	907.5	667.9	141.8	4.4	1.000235
8500.0	752.3	18.2	2.8	35.9	896.3	666.2	137.0	3.6	1.000233
9000.0	739.1	17.2	2.0	36.1	883.5	665.0	101.0	4.4	1.000229
9500.0	726.0	16.5	.9	34.7	870.3	664.1	75.0	6.4	1.000223
10000.0	713.1	15.8	-.3	33.4	857.2	663.2	60.8	9.2	1.000218
10500.0	700.5	15.0	-1.5	32.1	844.3	662.3	58.2	11.1	1.000213
11000.0	687.9	13.9	-3.7	29.4	832.8	660.9	60.4	11.7	1.000207
11500.0	675.6	12.7	-6.0	26.7	821.5	659.4	65.4	11.6	1.000201
12000.0	663.4	11.5	-8.3	24.0	810.4	657.9	67.0	11.3	1.000196
12500.0	651.5	10.2	-7.2	28.5	799.2	656.5	67.8	11.1	1.000195
13000.0	639.6	8.8	-5.6	35.5	788.3	655.0	66.0	10.5	1.000195
13500.0	627.9	7.4	-4.6	42.1	777.6	653.4	63.4	9.9	1.000194
14000.0	616.4	6.0	-4.0	48.7	767.1	651.8	57.8	9.4	1.000193
14500.0	605.1	4.6	-2.4	60.2	756.4	650.4	51.3	9.1	1.000194
15000.0	593.9	3.7	-2.7	63.0	745.0	649.2	45.6	8.8	1.000191
15500.0	582.9	2.8	-4.1	60.3	733.7	648.1	39.8	8.6	1.000186
16000.0	572.0	1.2	-4.2	67.0	724.1	646.2	33.7	8.2	1.000184
16500.0	561.3	-.4	-4.5	73.8	714.7	644.4	27.2	8.0	1.000182
17000.0	550.7	-1.0	-5.3	72.2	702.9	643.6	24.9	8.2	1.000178
17500.0	540.3	-1.2	-6.6	66.4	690.3	643.3	25.6	8.4	1.000173
18000.0	530.1	-2.0	-8.4	61.6	679.6	642.2	35.9	9.2	1.000168

STATION ALTITUDE 3989.00 FEET MSL
 20 JULY 78
 ASCENSION NO. 456
 1150 HRS MDT

UPPER AIR DATA
 2010020456
 WHITE SANDS
 TABLE VI. (CONT.)

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
		AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE				DIRECTION DEGREES(TN)	SPEED KNOTS	
18500.0	520.1	-2.9	-8.8	64.0	668.9	641.2	43.3	10.1	1.000165
19000.0	510.2	-4.1	-9.2	67.8	659.2	639.7	48.3	11.0	1.000163
19500.0	500.4	-5.6	-9.7	72.8	650.2	637.9	48.9	11.3	1.000160
20000.0	490.8	-6.6	-9.2	82.0	640.0	636.8	48.1	11.4	1.000159
20500.0	481.3	-8.0	-10.8	80.0	631.0	635.0	44.2	11.0	1.000155
21000.0	471.9	-9.4	-12.5	77.9	622.1	633.3	40.4	10.4	1.000151
21500.0	462.8	-10.8	-14.2	75.9	613.4	631.6	40.0	9.1	1.000148
22000.0	453.7	-12.0	-15.6	74.3	604.4	630.0	44.0	7.6	1.000145
22500.0	444.8	-12.5	-28.1	25.5	594.1	629.2	63.8	6.1	1.000136
23000.0	436.0	-13.8	-35.4	14.0	585.4	627.5	81.1	5.4	1.000132
23500.0	427.4	-15.1	-37.3	13.0	576.9	625.8	85.8	4.8	1.000130
24000.0	418.8	-15.6	-37.6	13.0	566.4	625.3	82.9	5.2	1.000128
24500.0	410.5	-16.1	-38.0	13.0	556.1	624.7	75.9	6.6	1.000125
25000.0	402.3	-17.1	-38.4	13.6	547.1	623.5	74.4	8.1	1.000123
25500.0	394.2	-18.2	-39.3	13.5	538.4	622.1	74.4	9.6	1.000121
26000.0	386.2	-19.1	-40.5	12.9	529.4	621.0	73.7	10.8	1.000119
26500.0	378.4	-20.0	-41.8	12.3	520.6	619.9	73.1	11.9	1.000117
27000.0	370.7	-20.9	-43.0	11.6	511.9	618.7	75.7	12.5	1.000115
27500.0	363.2	-21.9	-44.2	11.0	503.4	617.6	77.8	12.9	1.000113
28000.0	355.6	-22.9	-44.9	11.2	495.0	616.3	73.7	12.4	1.000111
28500.0	348.2	-23.9	-45.6	11.4	486.7	615.0	68.9	12.0	1.000109
29000.0	341.0	-25.0	-46.2	11.7	478.6	613.8	60.4	12.1	1.000107
29500.0	333.9	-26.0	-46.9	11.9	470.6	612.5	52.2	12.4	1.000105
30000.0	326.9	-27.1	-47.6	12.1	462.8	611.2	48.7	13.0	1.000104
30500.0	320.1	-28.1	-48.3	12.3	455.0	609.9	45.6	13.7	1.000102
31000.0	313.5	-29.1	-49.0	12.5	447.5	608.6	48.9	16.4	1.000100
31500.0	306.9	-30.2	-49.7	12.8	440.0	607.3	51.5	19.3	1.000098
32000.0	300.6	-31.2	-50.4	13.0	432.7	606.0	52.9	22.1	1.000097
32500.0	294.1	-32.4	-52.4	11.6**	425.5	604.5	53.9	24.9	1.000095
33000.0	287.7	-33.7	-54.6	10.0**	418.5	602.9	53.2	25.9	1.000093

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

UPPER AIR DATA
 2010020456
 WHITE SANDS
 TABLE VI. (CONT.)

STATION ALTITUDE 3989.00 FEET MSL
 20 JULY 78
 1150 HRS MDT
 ASCENSION NO. 456

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
		AIR DEGREES	DEWPOINT CENTIGRADE				DIRECTION DEGREES(TN)	SPEED KNOTS	
33500.0	281.5	-34.9	-56.9	8.5**	411.6	601.3	52.4	26.6	1.000092
34000.0	275.4	-36.1	-59.5	6.9**	404.7	599.8	51.3	25.7	1.000090
34500.0	269.4	-37.4	-62.4	5.3**	398.1	598.2	50.5	24.6	1.000089
35000.0	263.6	-38.6	-65.9	3.8**	391.5	596.6	51.2	23.3	1.000087
35500.0	257.9	-39.8	-70.5	2.2**	385.0	595.1	51.8	22.1	1.000086
36000.0	252.3	-41.1	-79.2	.6**	378.7	593.5	52.2	21.3	1.000084
36500.0	246.7	-42.3			372.3	591.9	53.1	20.6	1.000083
37000.0	241.2	-43.6			366.0	590.3	55.6	20.1	1.000082
37500.0	235.8	-44.8			359.7	588.7	59.2	19.7	1.000080
38000.0	230.5	-46.0			353.5	587.1	65.9	19.5	1.000079
38500.0	225.3	-47.3			347.5	585.5	72.2	19.2	1.000077
39000.0	220.2	-48.4			341.3	584.0	77.1	16.7	1.000076
39500.0	215.1	-49.5			335.1	582.6	83.6	14.4	1.000075
40000.0	210.2	-50.6			329.0	581.1	91.2	13.0	1.000073
40500.0	205.3	-51.7			323.1	579.7	99.5	12.0	1.000072
41000.0	200.6	-52.9			317.3	578.2	102.6	12.7	1.000071
41500.0	195.9	-53.9			311.2	576.9	102.9	13.0	1.000069
42000.0	191.2	-54.9			305.1	575.6	92.9	12.1	1.000068
42500.0	186.6	-55.9			299.2	574.3	82.3	11.2	1.000067
43000.0	182.2	-56.9			293.4	572.9	71.4	9.9	1.000065
43500.0	177.8	-57.9			287.7	571.6	59.2	8.9	1.000064
44000.0	173.6	-58.9			282.2	570.3	49.8	7.7	1.000063
44500.0	169.4	-59.9			276.8	568.9	37.8	6.9	1.000062
45000.0	165.4	-60.9			271.4	567.6	32.7	6.7	1.000060
45500.0	161.4	-61.9			266.2	566.3	29.3	10.5	1.000059
46000.0	157.6	-62.9			261.1	564.9	37.2	12.2	1.000058
46500.0	153.8	-63.9			256.1	563.6	44.1	14.1	1.000057
47000.0	150.1	-64.4			250.6	562.8	63.6	14.5	1.000056
47500.0	146.4	-65.3			245.4	561.7	82.0	16.4	1.000055
48000.0	142.8	-65.9			240.1	560.9	97.5	14.5	1.000053

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3989.00 FEET MSL
 20 JULY 78
 ASCENSION NO. 456 1150 HRS MDT

UPPER AIR DATA
 2010020456
 WHITE SANDS
 TABLE VI. (CONT)

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES(TN)	SPEED KNOTS	
48500.0	139.3	-65.2		233.4	561.8	116.6	13.6	1.000052
49000.0	135.9	-64.5		226.9	562.7	140.5	9.2	1.000051
49500.0	132.5	-65.0		221.8	562.0	187.0	7.8	1.000049
50000.0	129.2	-65.6		216.8	561.3	219.9	8.6	1.000048
50500.0	126.0	-66.1		212.0	560.6	242.3	10.5	1.000047
51000.0	122.9	-66.6		207.3	559.9	253.2	9.6	1.000046
51500.0	119.8	-67.2		202.6	559.1	266.1	6.8	1.000045
52000.0	116.8	-67.7		198.1	558.4	281.3	3.6	1.000044
52500.0	113.9	-68.2		193.7	557.7	59.3	1.1	1.000043
53000.0	111.1	-68.8		189.3	557.0	96.5	4.9	1.000042
53500.0	108.3	-69.3		185.1	556.2	115.6	8.7	1.000041
54000.0	105.6	-69.8		181.0	555.5	122.1	12.3	1.000040
54500.0	103.0	-70.4		177.0	554.8	122.3	13.4	1.000039
55000.0	100.4	-70.9		173.0	554.0	122.5	14.5	1.000039
55500.0	97.9	-70.9		168.7	554.0	119.3	13.7	1.000038
56000.0	95.4	-70.8		164.3	554.2	115.3	12.8	1.000037
56500.0	93.0	-70.7		160.1	554.3	110.8	14.7	1.000036
57000.0	90.7	-70.6		156.0	554.5	107.5	17.6	1.000035
57500.0	88.4	-69.9		151.5	555.5	102.9	20.8	1.000034
58000.0	86.2	-68.1		146.4	557.9	97.7	24.4	1.000033
58500.0	84.1	-66.3		141.5	560.4	95.2	27.7	1.000032
59000.0	82.0	-65.3		137.4	561.7	99.1	28.9	1.000031
59500.0	80.0	-64.6		133.6	562.6	102.6	30.2	1.000030
60000.0	78.1	-64.0		130.0	563.5	110.6	29.3	1.000029
60500.0	76.2	-63.3		126.4	564.3	120.3	28.6	1.000028
61000.0	74.3	-62.7		123.0	565.2	127.4	27.0	1.000027
61500.0	72.5	-62.0		119.6	566.1	131.0	22.7	1.000027
62000.0	70.7	-61.4		116.3	566.9	136.1	18.5	1.000026
62500.0	69.0	-61.2		113.4	567.2	133.0	12.7	1.000025
63000.0	67.3	-61.4		110.8	567.0	122.0	6.8	1.000025

UPPER AIR DATA
 2010020456
 WHITE SANDS
 TABLE VI. (CONT.)

STATION ALTITUDE 3989.00 FEET MSL
 20 JULY 78 1150 HRS MDT
 ASCENSION NO. 456

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES(TN)	SPEED KNOTS	
63500.0	65.7	-61.5	108.2	566.7	81.4	4.2	1.000024	
64000.0	64.1	-61.7	105.7	566.5	54.2	6.5	1.000024	
64500.0	62.6	-61.8	103.2	566.3	44.2	9.5	1.000023	
65000.0	61.1	-61.6	100.6	566.7	59.5	15.8	1.000022	
65500.0	59.6	-61.0	97.9	567.4	65.9	22.6	1.000022	
66000.0	58.2	-60.5	95.3	568.1	71.7	26.7	1.000021	
66500.0	56.8	-60.0	92.8	568.8	76.4	30.3	1.000021	
67000.0	55.5	-59.4	90.4	569.6	80.6	31.1	1.000020	
67500.0	54.1	-58.9	88.0	570.3	85.2	29.9	1.000020	
68000.0	52.8	-58.3	85.7	571.0	88.9	28.9	1.000019	
68500.0	51.6	-57.8	83.4	571.7	90.1	28.4	1.000019	
69000.0	50.3	-57.3	81.2	572.4	91.3	27.9	1.000018	
69500.0	49.2	-56.9	79.2	572.9	92.0	28.1	1.000018	
70000.0	48.0	-56.5	77.2	573.4	92.5	28.7	1.000017	
70500.0	46.9	-56.2	75.3	573.8	93.0	29.2	1.000017	
71000.0	45.8	-55.9	73.4	574.2	94.0	29.4	1.000016	
71500.0	44.7	-55.6	71.6	574.7	95.0	29.6	1.000016	
72000.0	43.6	-55.2	69.8	575.1	96.1	29.7	1.000016	
72500.0	42.6	-54.9	68.0	575.5	97.8	29.7	1.000015	
73000.0	41.6	-55.0	66.5	575.4	99.6	29.7	1.000015	
73500.0	40.6	-55.1	64.9	575.3	100.7	29.8	1.000014	
74000.0	39.7	-55.1	63.4	575.2	100.9	30.1	1.000014	
74500.0	38.8	-55.2	62.0	575.1	101.0	30.4	1.000014	
75000.0	37.9	-55.3	60.5	575.0	100.6	30.3	1.000013	
75500.0	37.0	-55.4	59.1	574.9	99.7	30.0	1.000013	
76000.0	36.1	-55.5	57.8	574.8	98.8	29.6	1.000013	
76500.0	35.3	-55.5	56.4	574.7	96.2	30.2	1.000013	
77000.0	34.4	-55.6	55.1	574.6	93.5	31.0	1.000012	
77500.0	33.6	-55.7	53.9	574.5	91.1	32.0	1.000012	
78000.0	32.8	-55.4	52.5	574.9	90.8	33.9	1.000012	

STATION ALTITUDE 3989.00 FEET MSL
 20 JULY 78
 ASCENSION NO. 456
 1150 HRS MDT

UPPER AIR DATA
 2010020456
 WHITE SANDS
 TABLE VI. (CONT)

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	DEWPOINT DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION (TN) DEGREES	SPEED KNOTS	INDEX OF REFRACTION
78500.0	32.1	-55.0			51.2	575.4	90.5	35.8	1.000011
79000.0	31.3	-54.6			49.9	575.9	91.1	37.1	1.000011
79500.0	30.6	-54.3			48.7	576.3	93.3	37.2	1.000011
80000.0	29.9	-53.9			47.5	576.8	95.4	37.4	1.000011
80500.0	29.2	-53.5			46.3	577.4	96.4	36.6	1.000010
81000.0	28.5	-53.1			45.1	577.9	96.5	35.1	1.000010
81500.0	27.9	-52.7			44.0	578.5	96.5	33.6	1.000010
82000.0	27.2	-52.2			42.9	579.1	95.7	32.4	1.000010
82500.0	26.6	-51.8			41.9	579.6	94.2	31.6	1.000009
83000.0	26.0	-51.4			40.8	580.2	92.6	30.8	1.000009
83500.0	25.4	-51.0			39.8	580.7	90.6	30.7	1.000009
84000.0	24.8	-50.5			38.8	581.3	88.4	31.1	1.000009
84500.0	24.2	-50.1			37.9	581.8	86.2	31.5	1.000008
85000.0	23.7	-49.7			36.9	582.4	84.9	31.7	1.000008
85500.0	23.1	-49.3			36.0	582.9	84.4	31.6	1.000008
86000.0	22.6	-48.8			35.1	583.5	84.0	31.5	1.000008
86500.0	22.1	-48.5			34.2	584.0	83.7	31.0	1.000008
87000.0	21.6	-48.3			33.4	584.2	83.8	30.1	1.000007
87500.0	21.1	-48.2			32.7	584.4	83.9	29.2	1.000007
88000.0	20.6	-48.0			31.9	584.6	83.8	28.6	1.000007
88500.0	20.2	-47.9			31.2	584.8	83.5	28.7	1.000007
89000.0	19.7	-47.8			30.4	584.8	83.2	28.9	1.000007
89500.0	19.2	-47.9			29.8	584.7	83.1	29.2	1.000007
90000.0	18.8	-47.9			29.1	584.7	83.4	30.2	1.000006
90500.0	18.4	-48.0			28.4	584.6	83.7	31.2	1.000006
91000.0	18.0	-48.0			27.8	584.5	83.9	32.3	1.000006
91500.0	17.6	-48.1			27.2	584.5	84.2	33.8	1.000006
92000.0	17.2	-48.1			26.6	584.4	84.4	35.3	1.000006
92500.0	16.8	-48.1			26.0	584.4	84.6	36.8	1.000006
93000.0	16.4	-48.2			25.4	584.3	84.5	35.9	1.000006

STATION ALTITUDE 3989.00 FEET MSL
 20 JULY 78
 ASCENSION NO. 456

UPPER AIR DATA
 2010020456
 WHITE SANDS
 TABLE VI. (CONT)

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
93500.0	16.0	-48.2		24.8	584.3	84.3	34.7	1.000006
94000.0	15.7	-48.3		24.3	584.2	84.2	33.4	1.000005
94500.0	15.3	-48.3		23.7	584.1	84.3	33.8	1.000005
95000.0	15.0	-48.4		23.2	584.1	84.7	36.1	1.000005
95500.0	14.6	-48.4		22.7	584.0	85.1	38.4	1.000005
96000.0	14.3	-48.5		22.2	584.0			1.000005
96500.0	14.0	-48.4		21.7	584.0			1.000005
97000.0	13.7	-47.6		21.1	585.1			1.000005
97500.0	13.3	-46.8		20.5	586.1			1.000005
98000.0	13.0	-46.0		20.0	587.1			1.000004
98500.0	12.8	-45.2		19.5	588.2			1.000004

STATION ALTITUDE 3989.00 FEET MSL
 20 JULY 78
 1150 HRS MDT
 ASCENSION NO. 456

MANDATORY LEVELS
 2010020456
 WHITE SANDS
 TABLE VII.

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	WIND DATA	
				DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	5002.	30.3	15.	88.2	6.7
800.0	6753.	23.5	23.	102.3	6.9
750.0	8582.	17.9	37.	130.6	3.6
700.0	10508.	15.0	32.	58.2	11.2
650.0	12548.	10.1	30.	67.9	11.0
600.0	14709.	4.1	66.	48.7	9.0
550.0	17012.	-1.0	72.	24.8	8.2
500.0	19494.	-5.7	73.	48.9	11.3
450.0	22174.	-12.3	64.	50.7	6.9
400.0	25098.	-17.5	14.	74.4	8.4
350.0	28340.	-23.7	11.	70.3	12.0
300.0	31980.	-31.3	13.	52.9	22.3
250.0	36127.	-41.6		52.4	21.0
200.0	40966.	-53.0		102.9	12.8
175.0	43755.	-58.5		53.0	8.1
150.0	46887.	-64.4		63.3	14.5
125.0	50529.	-66.3		247.4	11.3
100.0	54915.	-71.0		122.4	14.5
80.0	59295.	-64.6		102.4	30.1
70.0	61993.	-61.1		135.9	16.5
60.0	65128.	-61.2		64.3	20.3
50.0	68878.	-57.1		91.6	27.8
40.0	73541.	-55.1		100.8	30.0
30.0	79567.	-54.0		94.9	37.3
25.0	83435.	-50.7		89.4	30.9
20.0	88244.	-47.8		83.5	28.8
15.0	94466.	-48.4		84.6	35.6

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4010.40 FEET MSL
 20 JULY 78
 ASCENSION NO. 29
 1150 HRS MDT

SIGNIFICANT LEVEL DATA
 2010220029
 NW 30
 TABLE VIII.

GEODETIC COORDINATES
 32600497 LAT DEG
 106,49714 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT
878.8	4010.4	11.7	25.0
850.0	4994.1	4.6	20.0
800.0	6750.5	5.5	31.0
768.0	7914.9	4.2	34.0
700.0	10518.3	1.4	41.0
648.2	12638.2	-0.1	49.0
601.4	14668.9	-1.6	64.0
574.2	15903.2	-1.5	83.0
548.0	17136.0	-5.5	71.0
522.0	18408.2	-5.7	84.0
513.6	18829.9	-7.5	80.0
500.0	19524.1	-7.5	87.0
488.8	20107.9	-7.1	97.0
472.6	20971.5	-10.7	87.0
456.6	21848.0	-15.4	65.0
433.4	23162.5	-17.6	72.0
418.2	24053.3	-20.5	64.0
411.2	24473.1	-35.3	16.0
400.0	25158.2	-36.3	16.0
360.8	27686.1	-33.7	22.0
353.8	28161.2	-38.1	21.0
333.8	29562.7	-25.0	30.0
300.0	32088.1	-39.9	40.0
266.2	34840.6	-44.2	52.0
254.8	35828.2	-50.2	34.0
250.0	36254.9		
217.6	39311.9		
200.0	41120.2		
154.2	46507.3		
150.0	47064.3		

STATION ALTITUDE 9010.40 FEET MSL
 20 JULY 78
 ASCENSION NO. 29 1150 HRS MDT

SIGNIFICANT LEVEL DATA
 2010220029
 NW 30
 TABLE VIII. (CONT)

GEODETIC COORDINATES
 32600497 LAT DEG
 106649714 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT
109.6	53301.6	-70.5	
100.0	55098.7	-70.1	
90.8	56996.2	-69.4	
84.8	58354.7	-65.8	
70.0	62228.2	-62.8	
50.0	69167.1	-57.2	
34.0	77267.9	-55.2	
30.0	79929.3	-52.1	
29.6	80217.6	-50.8	

UPPER AIR DATA
 2010220029
 NW 30
 TABLE IX.

STATION ALTITUDE 4010.40 FEET MSL
 20 JULY 78
 ASCENSION NO. 29

GEODETIC COORDINATES
 32608497 LAT DEG
 106649714 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
4010.4	878.8	34.6	25.0	988.9	685.5	90.0	5.1	1.000276
4500.0	844.3	32.3	22.5	981.1	682.5			1.000263
5000.0	809.8	30.0	20.0	973.0	679.6			1.000252
5500.0	775.3	28.2	23.2	961.9	677.6			1.000251
6000.0	740.8	26.3	26.3	951.0	675.6			1.000250
6500.0	706.3	24.5	29.4	940.4	673.6			1.000248
7000.0	671.8	23.0	31.6	929.0	671.8			1.000245
7500.0	637.3	21.7	32.9	917.6	670.3			1.000242
8000.0	602.8	20.4	34.2	906.0	668.8			1.000238
8500.0	568.3	19.2	35.6	892.6	667.5			1.000234
9000.0	533.8	18.1	36.9	880.5	666.1	164.3	3.5	1.000230
9500.0	499.3	16.9	38.3	868.5	664.7	112.6	2.3	1.000227
10000.0	464.8	15.7	39.6	856.7	663.4	63.9	3.9	1.000223
10500.0	430.3	14.5	41.0	845.1	662.0	86.9	5.9	1.000219
11000.0	395.8	13.5	42.8	832.9	660.8	57.3	7.4	1.000219
11500.0	361.3	12.5	44.7	821.0	659.6	61.9	8.4	1.000216
12000.0	326.8	11.4	46.6	809.2	658.4	66.3	9.0	1.000213
12500.0	292.3	10.4	48.5	797.6	657.2	69.6	9.4	1.000210
13000.0	257.8	9.1	51.7	786.6	655.7	63.6	8.9	1.000207
13500.0	223.3	7.8	55.4	775.9	654.1	56.4	8.6	1.000204
14000.0	188.8	6.4	59.1	765.5	652.5	48.4	8.0	1.000201
14500.0	154.3	5.1	62.8	755.2	650.9	48.2	9.0	1.000198
15000.0	119.8	3.7	69.1	744.9	649.3	43.8	9.2	1.000195
15500.0	85.3	2.2	76.0	734.8	647.7	42.5	9.2	1.000193
16000.0	50.8	.9	82.1	724.8	646.1	42.2	8.7	1.000191
16500.0	16.3	.1	87.2	714.8	644.5	44.0	7.3	1.000189
17000.0	0.0	-.7	92.3	704.8	642.9	46.6	6.0	1.000183
17500.0	0.0	-1.6	97.4	694.8	641.3	48.4	4.8	1.000178
18000.0	0.0	-2.6	102.5	684.8	639.7	34.9	4.0	1.000175
18500.0	0.0	-3.7	107.6	674.8	638.1	22.9	6.2	1.000173
			112.7	664.8	636.5	19.5	7.6	1.000170

XX WIND DATA INVALID DUE TO MISSING RAW AZIMUTH AND ELEVATION ANGLES.

STATION ALTITUDE 410.40 FEET MSL
 20 JULY 78
 ASCENSION NO. 29
 1150 HRS MDT

UPPER AIR DATA
 2010240029
 NW 30

GENETIC COORDINATES
 32.88497 LAT DEG
 106.49714 LON DEG

TABLE IX. (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND		WIND DATA		INDEX OF REFRACTION
		AIR DEGREES	DEWPOINT CENTIGRADE			KNOTS	FT/SEC	DIRECTION DEGREES(TN)	SPEED KNOTS	
19000.0	510.2	-4.9	-7.5	82.2	661.0	638.8	19.1	9.3	1.000166	
19500.0	500.5	-6.0	-7.5	88.7	650.8	637.7	27.1	9.1	1.000163	
20000.0	490.9	-6.6	-7.2	95.5	639.7	637.0	33.8	8.1	1.000162	
20500.0	481.4	-7.7	-8.7	92.5	630.2	635.5	41.4	5.8	1.000157	
21000.0	472.1	-8.9	-10.8	86.3	621.1	633.9	43.2	4.1	1.000153	
21500.0	462.9	-9.6	-13.4	73.7	610.8	633.0	39.1	2.5	1.000148	
22000.0	453.9	-10.5	-15.6	65.8	601.1	631.8	44.8	2.8	1.000144	
22500.0	444.9	-11.9	-16.5	68.5	592.4	630.2	48.0	3.1	1.000141	
23000.0	436.2	-13.3	-17.4	71.1	583.9	628.5	46.9	3.4	1.000139	
23500.0	427.6	-14.3	-18.7	69.0	574.7	627.2	46.9	3.6	1.000136	
24000.0	419.1	-15.2	-20.4	64.5	565.4	626.0	47.7	3.7	1.000133	
24500.0	410.6	-15.2	-35.3	16.0	554.7	625.7	48.1	2.9	1.000125	
25000.0	402.6	-16.1	-36.0	16.0	545.5	624.7	48.7	1.6	1.000123	
25500.0	394.5	-17.1	-35.6	18.2	536.5	623.5	66.0	1.8	1.000121	
26000.0	386.5	-18.1	-34.8	21.3	527.7	622.3	77.7	2.5	1.000119	
26500.0	378.7	-19.1	-34.3	24.5	519.1	621.0	75.2	5.8	1.000118	
27000.0	371.0	-20.1	-34.0	27.7	510.7	619.8	75.0	8.9	1.000116	
27500.0	363.5	-21.1	-33.8	30.8	502.3	618.6	78.0	9.9	1.000114	
28000.0	356.2	-21.7	-36.5	24.7	493.3	617.8	78.2	10.8	1.000111	
28500.0	348.9	-22.6	-37.9	23.2	484.9	616.8	75.1	11.3	1.000109	
29000.0	341.7	-23.7	-37.6	26.4	477.1	615.4	70.4	12.3	1.000108	
29500.0	334.7	-24.9	-37.5	29.6	469.4	614.0	65.2	13.7	1.000106	
30000.0	327.7	-26.0	-37.8	31.7	461.8	612.5	63.2	14.5	1.000104	
30500.0	320.8	-27.2	-38.3	33.7	454.2	611.1	62.3	15.1	1.000103	
31000.0	314.1	-28.3	-38.7	35.7	446.8	609.7	59.3	15.4	1.000101	
31500.0	307.6	-29.4	-39.3	37.7	439.5	608.2	56.0	15.8	1.000099	
32000.0	301.1	-30.6	-39.8	39.7	432.4	606.8	51.1	15.9	1.000098	
32500.0	294.7	-31.9	-40.5	41.8	425.4	605.2	46.0	16.1	1.000096	
33000.0	288.4	-33.2	-41.2	44.0	418.6	603.5	44.5	16.4	1.000094	
33500.0	282.2	-34.5	-42.0	46.2	411.9	601.8	43.8	16.8	1.000093	

STATION ALTITUDE 4010.40 FEET MSL
 20 JULY 78
 ASCENSION NO. 29

UPPER AIR DATA
 2010240020
 MW 30
 TABLE IX. (CONT.)

1150 HRS MDT
 GEODETIC COORDINATES
 32.88497 LAT DEG
 106.49734 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
3400.0	276.1	-35.9	48.3	405.3	600.2	45.7	17.6	1.000071
3450.0	270.2	-37.2	50.5	398.8	598.5	47.7	18.5	1.000090
3500.0	264.3	-38.5	49.1	392.3	596.8	51.7	19.3	1.000086
3550.0	258.5	-39.7	40.0	385.8	595.3	55.3	19.8	1.000086
3600.0	252.9	-40.6	20.3.00	378.7	594.1	59.1	18.9	1.000085
3650.0	247.2	-41.4		371.6	593.1	62.7	18.2	1.000083
3700.0	241.7	-42.7		365.4	591.3	63.3	17.9	1.000081
3750.0	236.3	-44.1		359.4	589.6	63.4	17.7	1.000080
3800.0	231.0	-45.5		353.4	587.8	61.9	17.8	1.000079
3850.0	225.8	-46.9		347.6	586.0	61.8	17.4	1.000077
3900.0	220.7	-48.2		341.9	584.2	67.3	15.7	1.000076
3950.0	215.7	-49.6		336.0	582.6	74.3	14.4	1.000075
4000.0	210.7	-50.5		329.8	581.2	82.9	14.3	1.000073
4050.0	205.9	-51.6		323.7	579.9	91.2	14.4	1.000072
4100.0	201.1	-52.6		317.7	578.5	97.2	14.2	1.000071
4150.0	196.4	-53.7		311.7	577.1	103.1	13.9	1.000069
4200.0	191.7	-54.8		305.8	575.7	105.1	12.8	1.000068
4250.0	187.1	-55.8		299.9	574.3	106.7	11.6	1.000067
4300.0	182.6	-56.9		294.2	572.9	96.9	8.4	1.000066
4350.0	178.3	-57.9		288.6	571.5	76.8	5.7	1.000064
4400.0	174.0	-59.0		283.1	570.1	40.8	5.0	1.000062
4450.0	169.9	-60.1		277.7	568.7	8.4	6.3	1.000062
4500.0	165.8	-61.1		272.5	567.3	11.0	8.2	1.000061
4550.0	161.9	-62.2		267.3	565.9	14.3	10.2	1.000060
4600.0	158.0	-63.2		262.2	564.5	26.7	10.5	1.000058
4650.0	154.3	-64.3		257.3	563.0	40.8	11.1	1.000057
4700.0	150.5	-64.3		251.0	563.0	57.1	11.3	1.000056
4750.0	146.7	-64.7		245.3	562.4	75.3	11.8	1.000055
4800.0	143.1	-65.2		239.8	561.8	91.2	12.3	1.000053
4850.0	139.5	-65.7		234.4	561.1	106.8	12.4	1.000052

.. AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4010.40 FEET MSL
 20 JULY 78
 ASCENSION NO. 29 1150 HRS MDT

UPPER AIR DATA
 2010220029
 NW 30

GEODETIC COORDINATES
 32686497 LAT DEG
 106649714 LON DEG

TABLE IX. (CONT.)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND		WIND DATA		INDEX OF REFRACTION
		AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE			KNOTS	DEGREES(TN)	DIRECTION	SPED KNOTS	
49000.0	136.1	-66.2			229.1	560.4	119.0		1.000051	
49500.0	132.7	-66.7			223.9	559.7	130.3		1.000050	
50000.0	129.4	-67.2			216.9	559.1	141.1		1.000049	
50500.0	126.2	-67.7			214.0	558.4	145.5		1.000048	
51000.0	123.1	-68.2			209.2	557.7	155.7		1.000047	
51500.0	120.0	-68.7			204.5	557.0	165.1		1.000046	
52000.0	117.0	-69.2			199.9	556.4	179.7		1.000045	
52500.0	114.1	-69.7			195.4	555.7	206.5		1.000044	
53000.0	111.3	-70.2			191.8	555.0	218.5		1.000043	
53500.0	108.5	-70.5			186.5	554.6	209.4		1.000042	
54000.0	105.8	-70.3			181.7	554.0	189.5		1.000040	
54500.0	103.1	-70.2			177.0	555.0	172.1		1.000039	
55000.0	100.5	-70.1			172.4	555.1	158.0		1.000038	
55500.0	98.0	-70.0			168.0	555.3	145.5		1.000037	
56000.0	95.5	-69.8			163.6	555.6	141.5		1.000036	
56500.0	93.1	-69.6			159.4	555.8	138.0		1.000035	
57000.0	90.8	-69.4			155.2	556.1	126.2		1.000035	
57500.0	88.5	-68.1			150.4	557.9	109.8		1.000033	
58000.0	86.3	-66.7			145.7	559.7	99.4		1.000032	
58500.0	84.2	-65.7			141.4	561.1	96.1		1.000031	
59000.0	82.1	-65.3			137.7	561.7	93.7		1.000031	
59500.0	80.1	-64.9			134.0	562.2	94.7		1.000030	
60000.0	78.2	-64.5			130.5	562.7	96.8		1.000029	
60500.0	76.3	-64.1			127.1	563.2	100.5		1.000028	
61000.0	74.4	-63.8			123.8	563.7	108.7		1.000028	
61500.0	72.6	-63.4			120.5	564.3	118.9		1.000027	
62000.0	70.8	-63.0			117.3	564.8	127.2		1.000026	
62500.0	69.1	-62.6			114.3	565.3	138.3		1.000025	
63000.0	67.4	-62.2			111.3	565.9	145.7		1.000025	
63500.0	65.8	-61.8			108.5	566.4	124.8		1.000024	

STATION ALTITUDE 4010.40 FEET MSL
 20 JULY 78
 ASCENSION NO. 29
 1150 HRS MDT

UPPER AIR DATA
 2010220029
 N# 30
 TABLE IX. (CONT)

GEODETIC COORDINATES
 32688497 LAT DEG
 106649714 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
64000.0	64.2	-61.4	61.4	105.7	566.9	95.1	8.9	1.000024
64500.0	62.7	-61.0	61.0	102.9	567.5	77.7	12.3	1.000023
65000.0	61.2	-60.6	60.6	100.3	568.0	71.2	17.0	1.000022
65500.0	59.7	-60.2	60.2	97.7	568.6	68.6	21.2	1.000022
66000.0	58.3	-59.8	59.8	95.2	569.1	71.9	22.7	1.000021
66500.0	56.9	-59.4	59.4	92.7	569.6	74.8	24.2	1.000021
67000.0	55.5	-58.9	58.9	90.3	570.2	78.1	25.1	1.000020
67500.0	54.2	-58.5	58.5	86.0	570.7	81.6	25.7	1.000020
68000.0	52.9	-58.1	58.1	85.7	571.2	84.7	26.4	1.000019
68500.0	51.6	-57.7	57.7	83.5	571.8	86.0	27.1	1.000019
69000.0	50.4	-57.3	57.3	81.4	572.3	87.3	27.9	1.000018
69500.0	49.2	-57.1	57.1	79.4	572.6	88.6	28.2	1.000018
70000.0	48.1	-57.0	57.0	77.4	572.8	89.8	27.9	1.000017
70500.0	46.9	-56.9	56.9	75.6	572.9	91.1	27.7	1.000017
71000.0	45.8	-56.7	56.7	73.8	573.1	93.3	28.1	1.000016
71500.0	44.7	-56.6	56.6	72.0	573.3	95.6	28.6	1.000016
72000.0	43.7	-56.5	56.5	70.3	573.4	97.9	29.1	1.000016
72500.0	42.7	-56.4	56.4	68.6	573.6	100.2	30.0	1.000015
73000.0	41.7	-56.3	56.3	66.9	573.7	102.3	30.9	1.000015
73500.0	40.7	-56.1	56.1	65.3	573.9	103.9	31.5	1.000015
74000.0	39.7	-56.0	56.0	63.7	574.1	104.5	31.1	1.000014
74500.0	38.8	-55.9	55.9	62.2	574.2	105.0	30.8	1.000014
75000.0	37.9	-55.8	55.8	60.7	574.4	105.6	30.3	1.000014
75500.0	37.0	-55.6	55.6	59.2	574.6	103.5	29.8	1.000013
76000.0	36.1	-55.5	55.5	57.8	574.7	101.8	29.3	1.000013
76500.0	35.3	-55.4	55.4	56.4	574.9	99.5	28.9	1.000013
77000.0	34.4	-55.3	55.3	55.1	575.1	97.8	29.0	1.000012
77500.0	33.6	-54.9	54.9	53.7	575.5	97.8	30.4	1.000012
78000.0	32.8	-54.3	54.3	52.3	576.3	98.1	31.4	1.000012
78500.0	32.1	-53.8	53.8	50.9	577.0	100.6	31.0	1.000011

UPPER AIR DATA
 2010220029
 NW 30
 TABLE IX. (CONT)

STATION ALTITUDE 4010.40 FEET MSL
 20 JULY 78
 ASCENSION NO. 29

GEODETIC COORDINATES
 32688497 LAT DEG
 106649714 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES(TN)	SPEED KNOTS	
79000.0	31.3	-53.2		49.6	577.8	103.2	30.7	1.000011
79500.0	30.6	-52.6		48.4	578.6			1.000011
80000.0	29.9	-51.8		47.1	579.6			1.000010

STATION ALTITUDE 4010.40 FEET MSL
 20 JULY 78
 ASCENSION NO. 29

MANDATORY LEVELS
 2010240029
 NM 30
 TABLE X.

GEODETIC COORDINATES
 32600497 LAT DEG
 106649714 LON DEG

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM.	WIND DATA	
MILLIBARS	FEET	AIR DEGREES	DEWPOINT CENTIGRADE	PERCENT	DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	4991.	30.0	4.6	20.	9999.0	9999.0XX
800.0	6745.	23.6	5.5	31.	9999.0	9999.0XX
750.0	8579.	19.0	3.6	36.	154.8	3.2
700.0	10508.	14.5	1.4	41.	57.5	7.4
650.0	12549.	10.3	-0.0	49.	62.9	8.8
600.0	14714.	4.4	-1.6	65.	43.3	9.2
550.0	17019.	-0.7	-5.2	72.	45.3	4.7
500.0	19497.	-6.0	-7.6	89.	27.4	9.1
450.0	22183.	-11.1	-16.0	67.	46.8	2.9
400.0	25116.	-16.4	-36.3	16.	51.3	1.4
350.0	28371.	-22.4	-37.9	23.	75.6	11.2
300.0	32024.	-30.8	-39.9	40.	50.4	15.9
250.0	36175.	-40.7			61.1	18.5
200.0	41021.	-52.9			98.5	14.1
175.0	43809.	-58.8			48.5	5.0
150.0	46937.	-64.3			58.7	11.3
125.0	50565.	-67.9			148.6	4.3
100.0	54928.	-70.1			153.3	9.8
80.0	59329.	-64.9			94.7	29.8
70.0	62015.	-62.8			131.1	17.5
60.0	65150.	-60.2			68.4	20.4
50.0	68907.	-57.2			87.7	28.1
40.0	73550.	-56.0			104.3	31.3
30.0	79588.	-52.1				

00 AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

XX WIND DATA INVALID DUE TO MISSING RAW AZIMUTH AND ELEVATION ANGLES.

STATION ALTITUDE 4126.59 FEET MSL
 20 JULY 78
 ASCENSION NO. 423
 1150 HRS MDT

SIGNIFICANT LEVEL DATA
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 HOLLOMAN
 TABLE XI.

GEODETIC COORDINATES
 32.88865 LAT DEG
 106.09965 LON DEG

PRESSURE GEOMETRIC ALTITUDE		TEMPERATURE		REL. HUM.
MILLIBARS	MSL FEET	AIR DEGREES	DEWPOINT CENTIGRADE	PERCENT
876.3	4126.6	32.8	7.6	21.0
866.1	4470.7	29.4	6.7	24.0
850.0	5018.3	28.5	6.0	24.0
768.0	7932.3	19.9	4.4	36.0
700.0	10531.9	14.4	.3	38.0
617.2	13974.5	5.6	-1.3	61.0
552.8	16901.8	-1.8	-5.8	74.0
526.2	18190.8	-3.1	-8.0	69.0
500.0	19514.0	-6.4	-10.6	72.0
481.6	20474.4	-9.2	-11.4	84.0
441.0	22698.6	-13.7	-16.8	77.0
435.6	23006.8	-14.0	-23.1	46.0
425.6	23587.3	-13.8	-34.8	15.0
412.6	24360.7	-15.2	-34.1	18.0
400.0	25128.7	-17.3	-36.4	17.0
359.1	27764.8	-22.0	-40.9	16.0
300.0	32034.9	-31.8	-44.8	26.0
264.6	34918.8	-38.3	-49.9	28.0
250.0	36195.0	-41.9		
225.8	38432.7	-48.8		
200.0	41031.7	-53.6		
150.0	46964.6	-65.5		
100.0	54959.9	-72.6		
84.8	58207.2	-66.2		
70.0	62076.1	-62.9		
54.8	67119.3	-57.5		
50.0	69034.9	-56.9		
42.4	72491.7	-56.2		
35.2	76386.0	-57.9		
30.0	79763.0	-52.2		

STATION ALTITUDE 4126.59 FEET MSL
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SIGNIFICANT LEVEL DATA
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 TABLE XI. (CONT)

GEODETIC COORDINATES
 32.88865 LAT DEG
 106.09965 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT
25.4	83347.5	-49.6	
20.0	88528.2	-49.5	
15.6	93924.9	-48.9	

STATION ALTITUDE 4126.59 FEET MSL
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 TABLE XII.

GEODETIC COORDINATES
 32.88865 LAT DEG
 106.09965 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES	TEMPERATURE DEWPOINT DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES(TN)	WIND SPEED KNOTS	INDEX OF REFRACTION
4126.6	876.3	32.8	7.6	21.0	993.3	683.0	.0	.0	1.000264
4500.0	865.2	29.4	6.7	24.0	992.1	679.0	212.8	.7	1.000262
5000.0	850.5	28.5	6.0	24.0	978.1	678.1	212.8	1.6	1.000257
5500.0	835.9	27.1	5.9	26.0	965.8	676.5	212.1	2.2	1.000254
6000.0	821.4	25.6	5.8	28.0	953.8	674.8	206.1	1.5	1.000252
6500.0	807.3	24.1	5.5	30.1	942.0	673.1	221.9	1.3	1.000249
7000.0	793.3	22.7	5.2	32.2	930.4	671.4	248.5	1.2	1.000246
7500.0	779.6	21.2	4.8	34.2	918.9	669.8	289.4	1.2	1.000242
8000.0	766.1	19.8	4.3	36.1	907.5	668.1	313.0	1.0	1.000239
8500.0	752.6	18.7	3.5	36.4	894.8	666.9	2.1	.7	1.000234
9000.0	739.3	17.6	2.7	36.8	882.3	665.6	74.6	1.9	1.000230
9500.0	726.2	16.6	1.9	37.2	870.0	664.3	82.0	4.2	1.000226
10000.0	713.4	15.5	1.1	37.6	857.9	663.1	82.8	6.7	1.000221
10500.0	700.8	14.5	.3	38.0	845.9	661.8	79.1	8.8	1.000217
11000.0	688.1	13.2	.3	41.1	834.3	660.4	75.8	10.8	1.000215
11500.0	675.7	11.9	.2	44.5	822.8	658.9	72.8	12.0	1.000212
12000.0	663.4	10.6	.0	47.8	811.5	657.4	69.8	13.0	1.000210
12500.0	651.4	9.4	-.2	51.1	800.4	656.0	63.4	12.9	1.000207
13000.0	639.6	8.1	-.5	54.5	789.5	654.5	57.5	12.8	1.000204
13500.0	628.0	6.8	-.9	57.8	778.7	653.0	52.9	12.6	1.000201
14000.0	616.6	5.5	-1.3	61.1	768.2	651.5	48.4	12.0	1.000198
14500.0	605.1	4.3	-2.1	63.3	757.4	649.9	43.5	10.6	1.000195
15000.0	593.8	3.0	-2.8	65.6	746.7	648.4	38.3	9.8	1.000191
15500.0	582.8	1.7	-3.6	67.8	736.3	646.9	33.3	9.5	1.000188
16000.0	571.9	.5	-4.3	70.0	726.0	645.4	31.6	9.2	1.000184
16500.0	561.2	-.8	-5.1	72.2	715.8	643.8	32.5	8.9	1.000181
17000.0	550.7	-1.9	-6.0	73.6	705.4	642.5	31.4	8.3	1.000177
17500.0	540.3	-2.4	-6.8	71.7	693.4	641.9	28.4	7.5	1.000173
18000.0	530.1	-2.9	-7.6	69.7	681.6	641.2	29.5	7.1	1.000170
18500.0	520.0	-3.9	-8.6	69.7	671.1	640.0	33.5	7.0	1.000166

STATION ALTITUDE 4126.59 FEET MSL
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 TABLE XII. (CONT)

GEODETIC COORDINATES
 32.88865 LAT DEG
 106.09965 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM, PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
		AIR DEGREES	DEWPOINT CENTIGRADE				DIRECTION DEGREES(TN)	SPEED KNOTS	
19000.0	510.0	-5.1	-9.6	70.8	661.4	638.5	38.1	6.9	1.000163
19500.0	500.3	-6.4	-10.6	72.0	651.9	637.0	42.4	7.0	1.000160
20000.0	490.6	-7.8	-11.0	78.1	642.8	635.2	40.6	7.1	1.000157
20500.0	481.1	-9.3	-11.5	83.9	633.8	633.5	40.1	7.1	1.000155
21000.0	471.7	-10.3	-12.7	82.3	623.9	632.2	47.6	7.1	1.000152
21500.0	462.4	-11.3	-13.9	80.8	614.1	631.0	55.1	7.0	1.000148
22000.0	453.4	-12.3	-15.1	79.2	604.5	629.7	62.8	6.5	1.000145
22500.0	444.5	-13.3	-16.4	77.6	595.0	628.5	70.8	5.8	1.000142
23000.0	435.7	-14.0	-22.9	46.7	585.2	627.4	80.8	4.3	1.000136
23500.0	427.1	-13.8	-32.0	19.7	573.5	627.5	91.7	3.7	1.000130
24000.0	418.6	-14.5	-34.4	16.6	563.7	626.6	96.7	3.7	1.000127
24500.0	410.3	-15.6	-34.5	17.8	554.8	625.3	93.4	4.3	1.000125
25000.0	402.1	-16.9	-36.0	17.2	546.6	623.7	86.9	5.2	1.000123
25500.0	394.0	-18.0	-37.0	16.9	537.7	622.4	83.1	6.2	1.000121
26000.0	386.0	-18.9	-37.9	16.7	528.7	621.3	80.7	7.3	1.000119
26500.0	378.2	-19.7	-38.8	16.5	519.8	620.2	80.2	7.9	1.000117
27000.0	370.5	-20.6	-39.6	16.3	511.1	619.1	80.1	8.4	1.000115
27500.0	363.0	-21.5	-40.5	16.1	502.5	618.0	80.6	8.0	1.000113
28000.0	355.6	-22.5	-41.0	16.6	494.2	616.8	81.2	7.5	1.000111
28500.0	348.2	-23.7	-41.4	17.7	486.1	615.4	72.8	6.0	1.000109
29000.0	340.9	-24.8	-41.7	18.9	478.2	613.9	57.3	4.7	1.000107
29500.0	333.8	-26.0	-42.1	20.1	470.4	612.5	52.6	5.9	1.000106
30000.0	326.8	-27.1	-42.6	21.2	462.7	611.1	51.2	7.4	1.000104
30500.0	320.0	-28.3	-43.1	22.4	455.2	609.7	59.3	10.8	1.000102
31000.0	313.4	-29.4	-43.6	23.6	447.8	608.2	65.1	15.1	1.000101
31500.0	306.8	-30.6	-44.2	24.7	440.6	606.8	67.4	17.8	1.000099
32000.0	300.4	-31.7	-44.8	25.9	433.5	605.4	68.8	19.7	1.000097
32500.0	294.0	-32.8	-45.6	26.3	426.1	604.0	69.2	20.7	1.000096
33000.0	287.7	-34.0	-46.5	26.7	418.9	602.5	68.9	20.8	1.000094
33500.0	281.5	-35.1	-47.4	27.0	411.9	601.1	68.0	20.5	1.000092

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 TABLE XII. (CONT)

GEODETIC COORDINATES
 32.88865 LAT DEG
 106.09965 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION (TN) DEGREES	SPEED KNOTS	INDEX OF REFRACTION
34000.0	275.4	-36.2	-48.3	27.4	404.9	599.7	65.8	19.9	1.000091
34500.0	269.5	-37.4	-49.1	27.7	398.1	598.2	63.5	19.3	1.000049
35000.0	263.6	-38.5	-50.6	26.2**	391.4	596.8	60.8	19.3	1.000088
35500.0	257.8	-39.9	-56.3	15.2**	385.2	594.9	58.0	19.3	1.000086
36000.0	252.2	-41.4	-67.0	4.3**	373.0	593.1	57.8	19.3	1.000084
36500.0	246.6	-42.8			372.9	591.2	57.6	19.2	1.000083
37000.0	241.0	-44.4			367.0	589.2	64.1	17.8	1.000082
37500.0	235.6	-45.9			361.2	587.3	75.0	16.3	1.000080
38000.0	230.3	-47.5			355.5	585.3	85.6	15.5	1.000079
38500.0	225.1	-48.9			349.7	583.4	92.4	15.3	1.000078
39000.0	219.9	-49.8			343.1	582.2	99.3	15.3	1.000076
39500.0	214.8	-50.8			336.5	581.0	100.7	15.2	1.000075
40000.0	209.9	-51.7			330.1	579.7	101.6	15.1	1.000074
40500.0	205.0	-52.6			323.9	578.5	104.4	15.3	1.000072
41000.0	200.3	-53.5			317.7	577.3	109.2	15.8	1.000071
41500.0	195.5	-54.5			311.6	576.0	113.7	16.5	1.000069
42000.0	190.8	-55.5			305.5	574.7	111.9	15.0	1.000068
42500.0	186.3	-56.5			299.6	573.4	108.7	13.2	1.000067
43000.0	181.8	-57.5			293.7	572.0	103.8	11.3	1.000065
43500.0	177.4	-58.6			288.0	570.7	91.2	8.4	1.000064
44000.0	173.2	-59.6			282.5	569.4	67.8	6.2	1.000063
44500.0	169.0	-60.6			277.0	568.0	44.3	6.6	1.000062
45000.0	165.0	-61.6			271.6	566.7	34.8	8.5	1.000060
45500.0	161.0	-62.6			266.4	565.3	28.9	10.5	1.000059
46000.0	157.2	-63.6			261.3	564.0	39.5	11.6	1.000058
46500.0	153.4	-64.6			256.2	562.6	49.3	12.9	1.000057
47000.0	149.7	-65.5			251.2	561.3	57.9	13.9	1.000056
47500.0	146.0	-66.0			245.5	560.7	71.5	12.5	1.000055
48000.0	142.3	-66.4			239.8	560.1	87.5	11.8	1.000053
48500.0	138.8	-66.9			234.3	559.5	102.6	10.7	1.000052

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

UPPER AIR DATA
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 TABLE XII. (CONT)

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GEODETIC COORDINATES
 32.88865 LAT DEG
 106.09965 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES(TN)	SPEED KNOTS	
49000.0	135.3	-67.3		229.0	558.9	121.9	7.4	1.000051
49500.0	131.9	-67.8		223.7	558.3	158.2	6.0	1.000050
50000.0	128.6	-68.2		218.6	557.7	192.5	6.4	1.000049
50500.0	125.4	-68.6		213.6	557.1	216.3	7.6	1.000048
51000.0	122.2	-69.1		208.7	556.5	231.9	9.7	1.000046
51500.0	119.2	-69.5		203.9	555.9	232.9	8.7	1.000045
52000.0	116.2	-70.0		199.2	555.3	223.6	5.8	1.000044
52500.0	113.3	-70.4		194.7	554.7	199.7	3.4	1.000043
53000.0	110.4	-70.9		190.2	554.1	148.2	2.9	1.000042
53500.0	107.7	-71.3		185.9	553.5	116.0	4.6	1.000041
54000.0	105.0	-71.7		181.6	552.9	102.9	6.8	1.000040
54500.0	102.4	-72.2		177.4	552.3	101.5	8.5	1.000040
55000.0	99.8	-72.5		173.3	551.8	103.7	9.6	1.000039
55500.0	97.3	-71.5		168.1	553.2	105.4	10.7	1.000037
56000.0	94.9	-70.6		163.1	554.5	102.7	13.1	1.000036
56500.0	92.5	-69.6		158.2	555.9	99.7	15.9	1.000035
57000.0	90.2	-68.6		153.5	557.2	97.6	18.8	1.000034
57500.0	87.9	-67.6		149.0	558.5	95.4	22.3	1.000033
58000.0	85.7	-66.6		144.5	559.9	93.8	25.9	1.000032
58500.0	83.6	-66.0		140.5	560.8	94.0	28.3	1.000031
59000.0	81.5	-65.5		136.8	561.4	97.6	28.1	1.000030
59500.0	79.5	-65.1		133.2	561.9	101.3	28.1	1.000030
60000.0	77.6	-64.7		129.6	562.5	106.0	27.3	1.000029
60500.0	75.7	-64.2		126.2	563.1	113.6	25.3	1.000028
61000.0	73.8	-63.8		122.9	563.7	122.2	23.7	1.000027
61500.0	72.0	-63.4		119.6	564.2	128.4	21.9	1.000027
62000.0	70.3	-63.0		116.5	564.8	129.3	18.6	1.000026
62500.0	68.6	-62.4		113.4	565.5	130.4	15.4	1.000025
63000.0	66.9	-61.9		110.4	566.2	120.8	12.6	1.000025
63500.0	65.3	-61.4		107.5	566.9	99.2	11.3	1.000024

STATION ALTITUDE 4126.59 FEET MSL
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UPPER AIR DATA
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 TABLE XII. (CONT)

GEODETIC COORDINATES
 32.88865 LAT DEG
 106.09965 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
		AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE				DIRECTION DEGREES(TN)	SPEED KNOTS	
64000.0	63.8	-60.8			104.6	567.7	76.1	11.8	1.000023
64500.0	62.2	-60.3			101.9	568.4	76.3	15.4	1.000023
65000.0	60.7	-59.8			99.2	569.1	77.3	19.2	1.000022
65500.0	59.3	-59.2			96.5	569.8	79.2	22.3	1.000022
66000.0	57.9	-58.7			94.0	570.5	83.7	23.9	1.000021
66500.0	56.5	-58.2			91.5	571.2	87.6	25.6	1.000020
67000.0	55.1	-57.6			89.1	571.9	88.4	26.0	1.000020
67500.0	53.8	-57.4			86.9	572.3	87.5	25.7	1.000019
68000.0	52.5	-57.2			84.8	572.5	86.5	25.3	1.000019
68500.0	51.3	-57.1			82.7	572.7	87.7	25.1	1.000018
69000.0	50.1	-56.9			80.7	572.9	89.0	24.8	1.000018
69500.0	48.9	-56.8			78.7	573.0	90.9	24.9	1.000018
70000.0	47.8	-56.7			76.9	573.2	94.1	25.5	1.000017
70500.0	46.6	-56.6			75.0	573.3	97.1	26.2	1.000017
71000.0	45.5	-56.5			73.2	573.4	101.5	26.4	1.000016
71500.0	44.5	-56.4			71.4	573.6	106.6	26.6	1.000016
72000.0	43.4	-56.3			69.7	573.7	111.7	26.9	1.000016
72500.0	42.4	-56.2			68.1	573.8	113.7	27.3	1.000015
73000.0	41.4	-56.4			66.5	573.5	115.5	27.7	1.000015
73500.0	40.4	-56.6			65.0	573.2	115.5	28.2	1.000014
74000.0	39.5	-56.9			63.5	572.9	109.9	28.7	1.000014
74500.0	38.5	-57.1			62.1	572.7	104.6	29.6	1.000014
75000.0	37.6	-57.3			60.7	572.4	100.0	30.5	1.000014
75500.0	36.7	-57.5			59.3	572.1	95.9	31.5	1.000013
76000.0	35.9	-57.7			58.0	571.8	92.1	32.6	1.000013
76500.0	35.0	-57.7			56.6	571.8	90.7	34.6	1.000013
77000.0	34.2	-56.9			55.1	572.9	89.6	36.7	1.000012
77500.0	33.4	-56.0			53.6	574.1	89.3	38.7	1.000012
78000.0	32.6	-55.2			52.1	575.2	90.5	39.2	1.000012
78500.0	31.8	-54.3			50.7	576.3	91.7	39.7	1.000011

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 TABLE XII. (CONT)

STATION ALTITUDE 4126.59 FEET MSL
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GEODETIC COORDINATES
 32.88865 LAT DEG
 106.09965 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES(TN)	WIND DATA		INDEX OF REFRACTION
							SPEED KNOTS	SPEED KNOTS	
79000.0	31.1	-53.5		49.3	577.4	93.4	39.4	39.8	1.000011
79500.0	30.4	-52.6		48.0	578.5	96.2	39.2	39.2	1.000011
80000.0	29.7	-52.0		46.7	579.3	99.0	38.7	38.7	1.000010
80500.0	29.0	-51.7		45.6	579.8	98.4	38.6	38.6	1.000010
81000.0	28.3	-51.3		44.5	580.3	96.3	38.7	38.7	1.000010
81500.0	27.7	-50.9		43.4	580.7	94.1	38.8	38.8	1.000010
82000.0	27.0	-50.6		42.3	581.2	92.5	35.0	35.0	1.000009
82500.0	26.4	-50.2		41.3	581.7	90.4	31.2	31.2	1.000009
83000.0	25.8	-49.9		40.3	582.2	88.2	27.7	27.7	1.000009
83500.0	25.2	-49.6		39.3	582.5	87.0	25.5	25.5	1.000009
84000.0	24.6	-49.6		38.4	582.5	85.6	23.2	23.2	1.000009
84500.0	24.1	-49.6		37.5	582.5	84.5	23.1	23.1	1.000008
85000.0	23.5	-49.6		36.7	582.5	84.0	25.1	25.1	1.000008
85500.0	23.0	-49.6		35.8	582.5	83.6	27.2	27.2	1.000008
86000.0	22.5	-49.5		35.0	582.5	84.4	28.1	28.1	1.000008
86500.0	22.0	-49.5		34.2	582.6	85.6	28.7	28.7	1.000008
87000.0	21.5	-49.5		33.4	582.6	86.7	29.3	29.3	1.000007
87500.0	21.0	-49.5		32.7	582.6	84.8	28.5	28.5	1.000007
88000.0	20.5	-49.5		31.9	582.6	82.8	27.8	27.8	1.000007
88500.0	20.0	-49.5		31.2	582.6	81.4	27.3	27.3	1.000007
89000.0	19.6	-49.4		30.5	582.7	81.9	27.1	27.1	1.000007
89500.0	19.1	-49.4		29.8	582.8	82.5	26.9	26.9	1.000007
90000.0	18.7	-49.3		29.1	582.8	82.6	27.4	27.4	1.000006
90500.0	18.3	-49.3		28.4	582.9	82.0	28.9	28.9	1.000006
91000.0	17.8	-49.2		27.8	583.0	81.5	30.4	30.4	1.000006
91500.0	17.4	-49.2		27.1	583.0				1.000006
92000.0	17.0	-49.1		26.5	583.1				1.000006
92500.0	16.7	-49.1		25.9	583.2				1.000006
93000.0	16.3	-49.0		25.3	583.3				1.000006
93500.0	15.9	-48.9		24.7	583.3				1.000005

STATION ALTITUDE 4126.59 FEET MSL
 20 JULY 78
 ASCENSION NO. 423

MANDATORY LEVELS
 2010010423
 HOLLOMAN
 TABLE XIII.

GEODETIC COORDINATES
 32.88865 LAT DEG
 106.09965 LON DEG

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM.	WIND DATA	
MILLIBARS	FEET	AIR DEGREES	DEWPOINT CENTIGRADE	PERCENT	DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	5015.	28.5	6.0	24.	212.8	1.6
800.0	6765.	23.4	5.4	31.	234.7	1.3
750.0	8595.	18.5	3.4	37.	29.1	.8
700.0	10522.	14.4	.3	38.	78.9	8.9
650.0	12558.	9.2	-.2	52.	62.6	12.9
600.0	14716.	3.7	-2.4	64.	40.9	10.0
550.0	17013.	-1.9	-6.0	73.	31.3	8.3
500.0	19487.	-6.4	-10.6	72.	42.4	7.0
450.0	22158.	-12.7	-15.6	79.	65.9	6.4
400.0	25087.	-17.3	-36.4	17.	85.7	5.4
350.0	28333.	-23.4	-41.3	17.	75.6	6.4
300.0	31971.	-31.8	-44.8	26.	68.8	19.8
250.0	36116.	-41.9			57.7	19.3
200.0	40932.	-53.6			109.4	15.9
175.0	43714.	-59.1			78.5	6.9
150.0	46838.	-65.5			56.6	14.2
125.0	50448.	-68.7			219.0	7.8
100.0	54790.	-72.6			103.4	9.4
80.0	59180.	-65.2			100.2	28.1
70.0	61864.	-62.9			129.3	18.3
60.0	65003.	-59.5			77.6	20.7
50.0	68776.	-56.9			89.0	24.8
40.0	73421.	-56.7			113.4	28.3
30.0	79423.	-52.2			97.5	38.9
25.0	83319.	-49.6			86.6	24.8
20.0	88114.	-49.5			81.4	27.3

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.